



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/380,337	03/06/2000	SETTARA CHANDRASEKHARAPPA	15280-315100	2491

7590 12/28/2005

KENNETH A WEBER  
TOWNSEND & TOWNSEND & CREW  
TWO EMBARCADERO CENTER  
8TH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER
----------

UNGAR, SUSAN NMN

ART UNIT	PAPER NUMBER
----------	--------------

1642

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 09/380,337	Applicant(s) CHANDRASEKHARAPPA ET AL.	
	Examiner Susan Ungar	Art Unit 1642	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 July 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on 25 July 2005. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☒ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

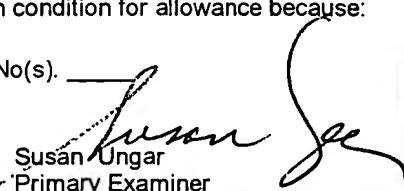
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: none.
- Claim(s) objected to: none.
- Claim(s) rejected: 1,3-5,19-24,26,30,32,33,36 and 37.
- Claim(s) withdrawn from consideration: 14-18,34 and 35.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_

  
 Susan Ungar  
 Primary Examiner  
 Art Unit: 1642

Continuation of 3. NOTE: The amendment of claim 1 to recite "said isolated nucleic acid is separated from open reading frames that flank a menin gene in its naturally occurring state, and wherein the isolated nucleic acid encodes a protein comprising an amino acid sequence having at least 95% identity to SEQ ID NO:2" is new matter. Although Applicant points to page 9, line 31 bridging to page 10, line 1 and page 10, lines 8-10, a review of the suggested support reveals only support for an isolated MEN1 gene which is separated from open reading frames which flank the gene and encode a protein other than the MEN1 gene product. In the absence of the provision drawn to an isolated MEN1 gene, the amendment broadens the claimed invention as originally filed, further, nowhere in the definitions of MEN1 gene or MEN1 gene products on page 10 is there any mention of an isolated nucleic acid, separated from open reading frames that flank a menin gene in its naturally occurring state wherein the encoded protein has an amino acid sequence having at least 95% identity to SEQ ID NO:2. Further, there is no support for the term "menin gene".

Continuation of 11. does NOT place the application in condition for allowance because: If the amendment had been entered, claims 1, 30, 32-33, 36-37 would still remain rejected under 35 USC 112, first paragraph for the reasons previously set forth in the Action mailed February 24, 2005, Section 4, pages 2-3.

Applicant notes that claims 2 and 3 are not included in this rejection, thus the basis of including claim 32 in this rejection is not clear. Applicant's concern is noted. As drawn to claim 2, claim 2 was canceled in Applicant's amendment filed November 22, 2004. Further, claim 3 is drawn to THE coding region of SEQ ID NO:1. Since claim 32 is drawn a heterologous nucleic acid which comprises A nucleic acid as set forth in SEQ ID NO:1 or SEQ ID NO:3, claim 32 is reasonably read as being drawn to a heterologous nucleic acid that comprises a heterologous nucleic acid which comprises A nucleic acid that has at least 95% identity to SEQ ID NO:1 or SEQ ID NO:3.

Applicant argues that numerous mutations in the MEN 1 coding region have been shown that lead to nonfunctional MEN 1 alleles and three relatively common polymorphisms, one of which leads to a change in protein sequence have been identified. Thus one would know how to use the claimed invention. The argument has been considered but has not been found persuasive because as previously set forth, Applicant is arguing limitations not recited in the claims as currently constituted.

If the amendment had been entered claims 1, 4-5, 19-24, 226, 30, 32-33, 36-37 would still remain rejected under 35 USC 112, first paragraph, for the reasons previously set forth in the Action mailed February 24, 2005, Section 5, pages 3-4.

Applicant argues that the gene MEN1, which encodes menin (exemplified by SEQ ID NO:2) is the underlying defect in MEN1 and the Examiner provides no evidence or reasoning as to why one of skill must know the precise cellular function of menin in order to be able to use the claimed nucleic acid sequences, for example, in the context of diagnosis. The argument has been considered but has not been found persuasive because Examiner has provided sound scientific reasoning and evidence from those skilled in the art to support her position from its first discussion in the Action mailed September 10, 2002, Section 10, pages 9-12, in particular, Examiner stated that given that there is no teaching that any nucleic acid encoding menin other than SEQ ID NO:3 is mutated and will distinguish type 1 from type 2 multiple endocrine neoplasia type 1, given that no function appears to have been ascribed to the claimed nucleic acid other than its ability to distinguish type 1 from type 2, given that the function of the encoded variant protein cannot be predicted, the claims are not enabled.

Applicant argues that claims 3, 4, and 32 also remain separately rejected as allegedly lacking enablement because Examiner contends that the claim encompasses sequences in addition to SEQ ID NO:1 and SEQ ID NO:3 and that amendment of claim 1 obviates the rejection. The argument has been considered but has not been found persuasive because the amendment has not been entered and therefore the argument is moot.

If the amendment had been entered, claims 1, 30, 32-33, 36-37 would still remain rejected under 35 USC 112, first paragraph for the reasons previously set forth in the Action mailed February 24, 2005, Section 7, pages 6-7.

Applicant reiterates previous arguments and further argues that polymorphic variants are taught in the specification. The arguments have been previously considered and have not been found persuasive for the reasons of record. Further, Applicant is arguing limitations not recited in the claims as currently constituted.

If the amendment had been entered, claims 19-24 and 26 would still remain rejected under 35 USC 112, first paragraph for the reasons previously set forth in the Action mailed February 24, 2005, Section 8, pages 7-8.

Applicant argues that disclosure of wildtype MEN 1 allele enables the claimed invention, that Applicant's have provided exemplary primers and probes and have identified numerous MEN1 mutations in patients having multiple endocrine neoplasia type 1. The argument has been considered but has not been found persuasive for the reasons previously set forth. In particular, the recitation of nucleic acid encoding SEQ ID NO:2 does not provide identifying characteristics of the genus of nucleic acid encoding SEQ ID NO:2. Applicant has identified only a single gene, MEN1 that is mutated in patients having multiple endocrine neoplasia type 1, thus the invention as currently claimed is not enabled, again for the reasons of record.

If the amendment had been entered, claims 1, 4-5, 30, 32-33, 36-37 would still remain rejected under 35 USC 102(b) for the reasons previously set forth in the Action mailed February 24, 2005, Section 9, pages 9-10.

Applicant argues that amendment of claim 1 obviates the instant rejection. The argument has been considered but is rendered moot because the amendment of claim 1 has not been entered.

If the amendment had been entered, claim 30 would still remain <sup>2</sup>rejected under 35 USC 112, second paragraph for the reasons

previously set forth in the Action mailed February 24, 2005, Section 10, page 10.

Applicant argues that amendment of claim 30 obviates the instant rejection. . The argument has been considered but is rendered moot because the amendment of claim 1 has not been entered.